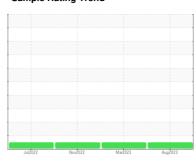


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id **536805**

Component **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

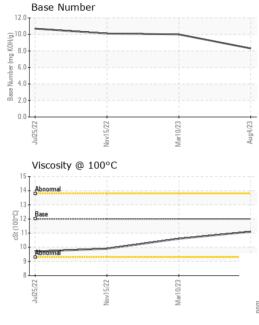
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

•		Jul2022	Nov2022	Mar2023 Au	g2023	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0103085	PCA0094217	PCA0083542
Sample Date		Client Info		04 Aug 2023	10 Mar 2023	15 Nov 2022
Machine Age	mls	Client Info		36315	24775	23714
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	NC	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	;	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	25	37	47
Chromium	ppm	ASTM D5185m	>20	2	3	5
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	1
Aluminum	ppm	ASTM D5185m	>20	25	24	41
Lead	ppm	ASTM D5185m	>40	2	0	<1
Copper	ppm	ASTM D5185m	>330	135	158	318
Tin	ppm	ASTM D5185m	>15	2	3	6
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	current 19	history1 40	history2 39
	ppm ppm		2			
Boron		ASTM D5185m	2	19	40	39
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	19 0	40	39 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	19 0 53	40 0 36	39 0 43
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	19 0 53 1	40 0 36 2	39 0 43 4
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	19 0 53 1 837	40 0 36 2 495	39 0 43 4 525
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	19 0 53 1 837 1323	40 0 36 2 495 1536	39 0 43 4 525 1811
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	19 0 53 1 837 1323 923	40 0 36 2 495 1536 676	39 0 43 4 525 1811 796
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	19 0 53 1 837 1323 923 1159	40 0 36 2 495 1536 676 834	39 0 43 4 525 1811 796 904
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	19 0 53 1 837 1323 923 1159 3304	40 0 36 2 495 1536 676 834 2589	39 0 43 4 525 1811 796 904 2607
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	19 0 53 1 837 1323 923 1159 3304	40 0 36 2 495 1536 676 834 2589	39 0 43 4 525 1811 796 904 2607
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	19 0 53 1 837 1323 923 1159 3304 current	40 0 36 2 495 1536 676 834 2589 history1	39 0 43 4 525 1811 796 904 2607 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	19 0 53 1 837 1323 923 1159 3304 current 4	40 0 36 2 495 1536 676 834 2589 history1	39 0 43 4 525 1811 796 904 2607 history2 7 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	19 0 53 1 837 1323 923 1159 3304 current 4 3 95	40 0 36 2 495 1536 676 834 2589 history1 7 3	39 0 43 4 525 1811 796 904 2607 history2 7 6 149
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	19 0 53 1 837 1323 923 1159 3304 current 4 3 95	40 0 36 2 495 1536 676 834 2589 history1 7 3 70	39 0 43 4 525 1811 796 904 2607 history2 7 6 149
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m Method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	19 0 53 1 837 1323 923 1159 3304 current 4 3 95 current 0.3	40 0 36 2 495 1536 676 834 2589 history1 7 3 70 history1 0.3	39 0 43 4 525 1811 796 904 2607 history2 7 6 149 history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	19 0 53 1 837 1323 923 1159 3304 current 4 3 95 current 0.3 6.9	40 0 36 2 495 1536 676 834 2589 history1 7 3 70 history1 0.3 7.2	39 0 43 4 525 1811 796 904 2607 history2 7 6 149 history2 0.4 9.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20 >30	19 0 53 1 837 1323 923 1159 3304 current 4 3 95 current 0.3 6.9 19.5	40 0 36 2 495 1536 676 834 2589 history1 7 3 70 history1 0.3 7.2 22.4	39 0 43 4 525 1811 796 904 2607 history2 7 6 149 history2 0.4 9.5 25.0

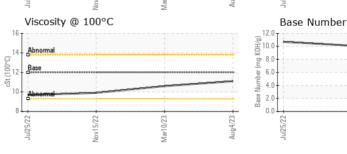


OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2

Visc @ 100°C	cSt	ASTM D445	12.00	11.1	10.6	9.9	
GRAPHS							
Iron (ppm)				Lead (ppm	1)		
Severe				Severe			
E 150				E 60			
Abnormal		***************************************		Abnormal			
50				20			
Jui25/22 +		Mar10/23 +	Aug4/23	Jui25/22	Nov15/22 -	Mar10/23	Aug4/23
_		Mari	Aug	-		Marl	Aug
Aluminum (ppm)			Chromium	(ppm)		
40 - Severe				40 Severe			
Abnormal				Abnormal			
				1			
10				10			
Jul25/22 -		Mar10/23 -	Aug4/23 -) Jul25/22	Nov15/22 ·	Mar10/23 -	Aug4/23
_		Mai	An	-	_	Mai	Au
Copper (ppm) Severe				Silicon (pp	m)		
300	_			60-			
E 200				E 40			
				Ahnormal			







Laboratory Sample No. Lab Number **Unique Number**

: PCA0103085 : 05925739 : 10605686

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received

Diagnosed

: 16 Aug 2023 : 16 Aug 2023

Diagnostician : Wes Davis

Test Package : MOB 1 (Additional Tests: TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

MILLER TRUCK LEASING #119

39 INDUSTRIAL AVE HASBROUCK HEIGHTS, NJ US 07604

Contact: MIKE LONGETTE mlongette@millertransgroup.com

T: F: (201)528-7053

Report Id: MILRUT [WUSCAR] 05925739 (Generated: 08/16/2023 14:36:22) Rev: 1

Contact/Location: MIKE LONGETTE - MILRUT